

Amendments to the Claims:

Please replace all prior versions of the claims under examination with the following:

Claims 1-47 previously cancelled

48. (amended herein) A method of diagnosing breast cancer in a patient, the method comprising:

(i) obtaining a ~~biological~~ sample comprising breast tissue from a patient;
and

(ii) detecting the level of a polynucleotide encoding a BCH1 polypeptide in the sample, wherein the polynucleotide is an mRNA at least 75% 95% identical to the nucleic acid sequence disclosed in SEQ ID NO:23, and wherein an increase in the level of the polynucleotide relative to normal breast tissue is indicative of cancer.

49. (amended herein) The method of claim 48, wherein the polynucleotide ~~is at least 95% identical to SEQ ID NO:23~~ encodes the amino acid sequence of SEQ ID NO:25.

50. (cancelled herein)

51. (cancelled herein)

52. (amended herein) The method of claim 48, wherein the method further comprises isolating nucleic acids from the sample ~~comprises isolated nucleic acids.~~

53. (cancelled herein)

54. (as filed) The method of claim 48, wherein the polynucleotide is SEQ ID NO:23.

55. (amended herein) The method of claim 48, wherein the detecting step comprises hybridizing a labeled probe to the polynucleotide ~~is labeled~~.

56. (amended herein) The method of claim 55, wherein the probe is labeled with label ~~is~~ a fluorescent label.

57. (amended herein) The method of claim 48, wherein the detecting step comprises hybridizing the polynucleotide to a probe that is immobilized on a solid surface.

58. (amended herein) The method of claim 48, wherein the ~~detection~~ detecting step comprises contacting the sample with a biochip, wherein the biochip comprises the nucleic acid sequence disclosed in SEQ ID NO:23.